fibers are very pronounced, and in view of the fact that the duration of the disease was rather longer than usual. I hold that both the virus and the toxin did play an equal part in bringing about these changes in the peripheral nerves primarily, and these gave rise to the reactionary cell changes in the cord and medulla and pons. The ganglion cell changes, however, which are accompanied by a slight neuronophagoeytosis are, in my opinion, the direct result of the virus.

Conclusion. We have here, therefore, a case of ascending paralysis, with attending neuritis, which followed the usual course of extension, later involving the upper extremities and bulbar nerves resulting in respiratory failure. The pathologie findings are definite. involving both the peripheral and central nervous systems. The course of the disease was longer than usually described, extending over six weeks, but otherwise the ease was typical in its elinical manifestations.

BIBLIOGRAPHY.

Burghart. Ein Fall von sogenannter Landry'scher Paralyse, Charité-Ann., Berlin, 1897, p. 136.

Korsakow und Serbski. Ein Fall von polyneuritischer Psychose mit Autopsie (im Pueperlum), Arch. f. Psychiat., 1891.

E Lugaro, E. Pathologische Anatomie, von Flatau, Jacobsohn und Minor, 1904 p. 1138.

Mosny et Moutier, Francois. Paralysie Ascendante Aigue (Syndrome de Landry), Arch. d. méd. expér. et d'anat. path., 1911, p. 285.

Pfeiffer, T. A. F. A Case of Landry's Paralysis, with Special Reference to the

Anatomical Changes, Brain, 1912, xxxv, 293.
Wappenschmidt. Ueber Landry sche Paralyse, Deutsch. Ztschr. f. Nervenh., 1900, xvi, Nos. 3 and 4.

THE VALUE OF SYMPTOMATIC DRUG TREATMENT.

By Joseph L. Miller, M.D., CHICAGO.

As compared with a few decades ago, drug therapy occupies a less prominent place in the treatment of disease, and inasmuch as most of our medication is symptomatic in character, it probably means that symptoms are less frequently treated than in former years. Is this to be considered a step in advance, or are we, on account of our interest in scientific medicine, negligent of an important detail in treatment? It is probably true that with the development of specific drug therapy and biological products the physician has become more impatient with and less interested in treatment directed toward giving only temporary relief. Other important reasons, however, must be considered. The profession each year contains more and more men with careful scientific training. This

training may have led them to scrutinize more closely all methods of trentment through carefully controlled observations. advance of pathological physiology, pharmaeology, and experimental therapeuties has furnished them with certain knowledge, and especially n new method of applying it. As a result of all this there has developed, as it appears to the writer, a certain healthy skepticism in regard to drug therapeutics.

Certain points should be considered before undertnking any symptomntie treatment. A few that might be mentioned are: Should this particular symptom be corrected? Does it interfere or assist in bringing about improvement or recovery? Will its modification interfere with mnking a correct diagnosis or obscure observation upon the progress of the condition? Having determined that a certain symptom should be treated, it is necessary to determine, if possible, the underlying pathological physiology and then the agent to correct it. Not merely the chemical agent but the necessary dosage and frequency with which it should be repeated in order to bring about the desired effect. To attempt to lower bloodpressure, at least under certnin conditions, may be poor therapeutics; as, for instance, when due to increased intracranial pressure, when the rise in blood-pressure is an effort to avoid eerebral anemia. It is not improbable that hypertension of renal origin is no effort to increase the efficiency of a pathological kidney. Drug antipyreties, on account of their depressing action, have been largely abandoned in the treatment of prolonged fever. The recent investigation of Rolly and Meltzer and Ludke and others raises the question whether any method of artificially lowering temperature is desirable, as according to their experiments at least a certain degree of fever favors the development of immune bodies. Before undertaking symptomatic treatment it is wise to consider the compensatory resources of the body and not confuse compensatory action with what is commonly regarded as a disease symptom.

In the severe acute infection if we decided the centres in the medulla are not functioning properly can we modify them by eertain drugs? We are taught by the pharmaeologists that strychnin quiekens and deepens the respirations and stimulates the vasomotor centre, eausing slowing of the pulse and a rise in blood-pressure. Now if these same results were produced at the bedside upon these centres, rendered abnormal by toxins, we would have in strychnin a valuable symptomatic remedy. Whether under the conditions mentioned, and in the usual doses, strychmin stimulates these centres sufficiently to bring about any appreciable improvement is exceedingly doubtful, as shown by the observations of Cabot, Newburgh, and others. We must therefore conclude that either our conception of the pathological physiology is incorrect, and the recent work of Newburgh indicates that in this particular illustration this may be the case, or our pharmacology is at fault. Symptomatic treatment, however, when applied to the correction of undesirable symptoms by agents that have been demonstrated to correct this disturbance is strictly scientifie, and in this respect is placed at once on the same level as specific therapy.

There is another group of conditions in which symptomatic treatment is not only strictly indicated but in which the agents are at hand to give relief. Morphin when administered to a pneumonia patient with acute pleurisy not only relieves the pain, but deepens the respiration, improves the oxygenation of the blood, promotes sleep, and thus becomes far-reaching in its results. In an acute attack of pulmonary edema, morphin is often of considerable value, in a measure due to its relieving the patient's fears and thus lowering the arterial blood-pressure, and so permit of a restoration of function of the left ventriele. Morphin in acute biliary or renal eolie relieves pain, and at the same time relaxes museular spasm, thus allowing the ealeulus to escape. Adrenalin, by relieving bronchial spasm, may abort an attack of bronchial asthma. Angina pectoris when due to spasm of the eoronary artery may be relieved by the nitrites.

There is another group of conditions in which symptomatic treatment may give only transitory relief, but when combined with other agents may give prolonged relief. This form of symptomatic treatment can only be considered scientific when associated with these additional measures; as, for example, digitalis, although elaimed as a functional remedy, is nevertheless, given to relieve symptoms, as, for instance, dyspnea. Alkalies are of value in relieving gastric hyperacidity. The digitalis, however, should be combined with restriction of physical exertion and the alkalies with the proper dietary measures in order to give lasting results.

Outside of the symptoms that can be placed in these groups mentioned or others of the same rational character, there is another group the treatment of which at least today cannot be considered as proved rational therapy. Here might be included the value of salieylates in acute arthritis, of expectorants, of bitter tonies, of arsenie in anemia, and of drugs used to control hemorrhage. It is in this field that the clinical therapeutist can render real service. Here a process of elimination is necessary in order to place therapeutics upon the same high plane as the other branches of medicine.

In addition there is a long list of drugs employed symptomatically proven to be without value, mentioned or recommended still in modern high class text-books. As an example we might name hexamethylenamin, which rapidly acquired a reputation as having bactericidal properties throughout the body and when administered by mouth to appear in the form of formalin in the various exerctions and secretions of the body. It is still extensively used

in respiratory and ear infections, in meningitis, arthritis, and cholecystitis; although it has been clearly demonstrated that the hexamethylcnamin is only split up and formalin set free in an acid media and of the various secretions, the urine is the only one which is acid.

In order to determine the value of symptomatic treatment it is very essential that the observer be familiar with the course of untreated disease. Individual variations must always be taken into consideration. Many patients with pernicious anemia grow progressively worse, others have prolonged periods of spontaneous improvement, the latter offering a dangerous pitfall for the unwary therapeutist. Perhaps in the teaching of clinical therapeutics it would be wise to instruct the student first in the course of untreated disease; if possible to follow a few cases in the ward, tabulating symptoms, their intensity and duration. He would thus be impressed with the importance of carefully recording symptoms. Ilc would thus be in a better position to determine the effect of therapeutie agents, and so avoid the error of acquiring experience in clinical therapcuties in a haphazard and time-consuming manner. For the purpose of artiving at accurate information too much stress cannot be laid upon the statistical method of which Dr. Osler has always been a strong advocate. While the impression of our therapeutic accomplishments may be more pleasant to consider, it is earcfully collected and recorded information that is of lasting benefit to medicine. Our therapeutics can be placed upon the same accurate basis as pathology and symptomatology. Symptomatic treatment is most important not only from the stand-point of the patients, but also for the purpose of clearing up the field of elinical therapeutics, and he who undertakes a eareful study of symptomatic therapeutics will be rendering a lasting service to medicine.

THE PROBLEMS OF NEPHRITIS FROM THE CLINICAL STAND-POINT.

BY ARTHUR R. ELLIOTT, M.D.,

Professor of Medicine, post-graduate Medical Berool; Physician to St. Luke's Hospital, Chicago.

UNTIL a comparatively recent period our knowledge of nephritis was mainly accumulated by the methods of clinical observation and anatomical research. Clinical study has slowly and laboriously amplified in matters of detail the essential facts contained in Bright's original conception of the clinical pathology of kidney disease, but has failed to alter or in any important degree to add to the fundamental principles outlined by the founder of renal